Brain Research Bulletin

VOLUME 53, 2000
LIST OF CONTENTS,
AUTHOR INDEX, AND KEYWORD INDEX

ELSEVIER

Brain Research Bulletin

Founded by MATTHEW J. WAYNER

Editor-in-Chief:
STEPHEN B. DUNNETT
School of Biosciences, Cardiff University
Biomedical Science Building, Museum Avenue
PO Box 911, Cardiff CF1 3US
Wales, UK

Section Editors

Cellular and Molecular Neurobiology
Ian S. Zagon, Department of Neuroscience and Anatomy, M.S. Hershey Medical Center, 500 University Drive, Hershey, PA 17033, USA

Cognition and Behaviour
Stephen B. Dunnett, School of Biosciences, Cardiff University, Biomedical Science Building, Museum Avenue, PO Box 911, Cardiff CF1 3US Wales, UK

Development and Regeneration
Andrew D. McClellan, Division of Biological Science, 105 Lefevre Hall, University of Missouri, Columbia, MO 65211-6190, USA

Functional and Molecular Neuroanatomy, and Experimental Neuropathology
Marina Bentivoglio, Department of Morphological and Biomedical Sciences, Section of Anatomy and Histology, Medical Faculty, University of Verona, Strada Le Grazie 8, 37134 Verona, ITALY

Neuropharmacology and Neuroendocrinology
E. Sylvester Vizi, Institute of Experimental Medicine, Hungarian Academy of Sciences, H-1450 Budapest, P.O.B. 67, HUNGARY

Neurophysiology and Computational Neuroscience
Adonis Moschovakis, Institute of Applied and Computational Mathematics, F.O.R.T.H., P.O. Box 1527, Heraklion, 71110, Crete, GREECE

Normal and Pathological Human Brain Function
Pietro Pietrini, Institute of Medical Biochemistry, Medical School, University of Pisa, Via Roma, 55, I-56126 Pisa, ITALY

Editorial Advisory Board

E. ABERCROMBIE, Rutgers University, Newark, NJ
J. AGGLETON, University of Wales, Cardiff, Wales
C. ASANUMA, National Institute of Health Animal Center, Poolesville, MD
A. BJÖRKLUND, University of Lund, Lund, Sweden
E. BUHL, University of Leeds, Leeds, UK
A. H. BURKHALTER, Washington University Medical School, St. Louis, MO
I. CREESE, Rutgers University, Newark, NJ
R. DRUCKER-COLIN, Universidad Nacional Autonoma De Mexico, Mexico City, Mexico
H. C. FIBIGER, University of British Columbia, Vancouver, Canada
F. H. GAGE, University of California at San Diego, La Jolla, CA
A. P. GEORGOPOULOS, University of Minnesota Medical School, Minneapolis, MN
B. GHETTI, Indiana University School of Medicine, Indianapolis, IN
S. R. GOODMAN, University of South Alabama, Mobile, AL
A. GRANTYN, CNRS Lab de Physiologie Neurosensorielle, Paris, France
H. J. GROENEWEGEN, Vrije Universiteit, Amsterdam, The Netherlands
A. R. HARVEY, University of Western Australia, Perth, Australia
M. HASTINGS, University of Cambridge, Cambridge, UK
M. A. HERKENHAM, National Institute of Mental Health, Bethesda, MD
T. KANEKO, Kyoto University, Kyoto, Japan
B. E. KOLB, University of Lethbridge, Alberta, Canada
J. H. KORDOWER, Rush Presbyterian Medical Center, Chicago, IL
G. K. KOSTOPOULOS, University of Patras Medical School, Patras, Greece
K. S. KRISTENSSON, Karolinska Institute, Stockholm, Sweden
G. KUNOS, National Institute for Alcohol Abuse & Alcoholism, Bethesda, MD
J. Y. KUWADA, University of Michigan, Ann Arbor, MI
L. LÉNÁRD, Pecs University Medical School, Pecs, Hungary
A. A. LEV-TOV, Hebrew University Medical School, Jerusalem, Israel
B. LICHARDUS, Slovak Academy of Sciences, Bratilava, Slovakia
G. B. MAKARA, Hungarian Academy of Sciences, Budapest, Hungary
P. J. McLAUGHLIN, M.S. Hershey Medical Center, Hershey, PA
R. D. MYERS, East Carolina University, Greenville, NC
M. J. O'DONOVAN, NINDS/NIH, Bethesda, MD
M. L. OSTER-GRANITE, National Institute of Child Health & Human Development, Bethesda, MD
M. PETRIDES, McGill University, Montreal, Canada
C. R. PLATA-SALAMÁN, The R.W. Johnson Pharmaceutical Research Institute, Spring House, PA
R. RÜEBSAMEN, University of Leipzig, Leipzig, Germany
P. R. SANBERG, University of South Florida, Tampa, FL
I. SEGEV, Hebrew University, Jerusalem, Israel
H. SERSHEN, Nathan S. Kline Institute, Orangeburg, NY
T. SLOTKIN, Duke University Medical Center, Durham, NC
L. R. SQUIRE, Veterans Administration Medical Center, San Diego, CA
J. D. STEEVES, University of British Columbia, Vancouver, Canada
L. SWANSON, University of Southern California, Los Angeles, CA
R. WEINBERG, University of North Carolina at Chapel Hill, Chapel Hill, NC
P. WINN, University of St. Andrews, Fife, UK

BRAIN RESEARCH BULLETIN

Publishing Office:
Elsevier Science Inc., 655 Avenue of the Americas, New York, NY, 10010-5107, USA, E-mail Address: ESUK.USA@ELSEVIER.COM
Subscription and Advertising Office:
Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010-5107, USA

Published 18 per annum (monthly with 2 issues published in January, March, May, July, September, and November).

Annual Institutional Subscription Rate (2001): For customers in Europe, The CIS and Japan: Institutional rate; NLG 5390.00. Personal rate: NLG 916.00. For customers in all other countries: Institutional rate: US$2736.00 Personal rate: US$465.00. Prices include postage and are subject to change without notice. For orders, claims, product enquiries (no manuscript enquiries) please contact the Customer Support Department at the Regional Sales Office nearest to you: New York: Elsevier Science, P.O. Box 945, New York, NY 10010. Tel: (212) 633-3730. Toll Free (for customers in North America): 1-888-4ES-INFO, Fax: (212) 633-3680, E-mail: usinfo-f@elsevier.com. Amsterdam: Elsevier Science, P.O. Box 211, 1000 AE Amsterdam, The Netherlands, Tel: (+31) 20-485-3757, Fax: (+31) 20-485-3432, E-mail: nlinfo-f@elsevier.nl. Tokyo: Elsevier Science, 9-15, Higashi-Azabu 1-chome, Minato-ku, Tokyo 106, Japan, Tel: (+81) 3-5561-5033, Fax: (+81) 3- 5561-5047, E-mail: kyf04035@niftyserve.or.jp. Singapore: Elsevier Science, No 1 Temasek Avenue, #17-01 Millenia Tower, Singapore 039192, Tel: (+65) 434-3727, Fax: (+65) 337-2230, E-mail: asiainf@elsevier.com.sg. Please address all author queries to: Authorsupport@elsevier.ie.

North and South America: Please direct inquiries regarding the placement of advertising in this journal to Jay Allan Feinman, Advertising Sales Dept., Elsevier Science Inc. 655 Avenue of the Americas, New York, NY 10010-5107. Tel: (212) 633-3689 Fax: (212) 633-3820 E-Mail: J. Feinman@Elsevier.com. International: Advertising Dept., Elsevier Science, The Boulevard, Langford Lane, Kidlington, Oxford, OX5 1GB United Kingdom. Tel: (144)(0)1865 843565; Fax: (81)(3)1865 843976; e-mail: media@elsevier.co.uk Japan: Advertising Dept., Elsevier Science Japan. Tel: (81)(3)5561 5033; Fax: (81)(3)5561-5047. Rio de Janeiro: Elsevier Science, Rua Sete de Setembro 111/16 Andar, 20050-002 Centro, Rio de Janeiro-RJ, Brazil; Tel: (+55) 21-509-5340, Fax: (+55) 21-507-1991, E-mail: elsevier@campus.com.br [Note (Latin America): for orders, claims and help desk information, please contact the Regional Sales Office in New York as listed above].
Please direct inquiries regarding reprints of 100 or less to the author. Requests for quantities of more than 100 copies should be directed to Anne Rosenthal, Commercial Reprints Dept., Elsevier Science Inc., 655 Avenue of the Americas, New York, NY 10010-5107. Tel: (212) 633-3813 Fax: (212) 633-3820.

Brain Research Bulletin is an official journal of the International Behavioral Neuroscience Society. For information about the society, please contact: Marianne Van Wagner, IBNS Central Office, Division of Life Sciences, The University of Texas @ San Antonio, 6900 North Loop 1604 West, San Antonio, TX 78249-0662, USA. Members of the International Behavioral Neuroscience Society may order personal subscriptions at a concessional rate; details of this rate are available upon request.

ELSEVIER

Brain Research Bulletin, Vol. 53, No. 6, pp. 861–869, 2000
Copyright © 2001 Elsevier Science Inc.
Printed in the USA. All rights reserved
0361-9230/00/$–see front matter

PII S0361-9230(01)00434-8

CONTENTS
VOLUME 53, 2000

CONTENTS VOLUME 53 NUMBER 1 SEPTEMBER 1, 2000

Special Issue: Autonomic Control During Action

Foreword
Yates, B. J., and M. A. Gresty 1

Articles

Adaptive plasticity in vestibular influences on cardiovascular control.
Yates, B. J., M. J. Holmes, and B. J. Jian 3

Patterning of sympathetic nerve activity in response to vestibular stimulation.
Kerman, I. A., R. M. McAllen, and B. J. Yates 11

Effects of caloric stimulation on respiratory frequency and heart rate and blood pressure variability.
Jauregui-Renaud, K., K. Yarrow, R. Oliver, M. A. Gresty, and A. M. Bronstein 17

Transient cardio-respiratory responses to visually induced tilt illusions.
Wood, S. J., C. D. Ramsdell, T. J. Mullen, C. M. Oman, D. L. Harm, and W. H. Paloski 25

Autonomic nervous system activity associated with postural disturbances in patients with perilymphatic fistula: Sympathetic or vagal origin?
Collet, C., E. Vernet-Maury, P. Miniconi, J. Chanel, and A. Dittmar 33

Neck afferent involvement in cardiovascular control during movement.
Bolton, P. S., and C. A. Ray 45

Spinal modulation of the muscle pressor reflex by nitric oxide and acetylcholine.
Wilson, B. L. 51

Somatosympathetic reflex in a working heart-brainstem preparation of the rat.
Potts, J. T., K. M. Spyer, and J. F. R. Paton 59

Cardiovascular responses in anticipation of changes in posture and locomotion.
Smith, O. A., C. A. Astley, F. A. Spelman, E. V. Golanov, D. M. Bowden, M. A. Chesney, and V. Chalyan 69

Hypothalamus, hypertension, and exercise.
Kramer, J. M., E. D. Plowey, J. A. Beatty, H. R. Little, and T. G. Waldrop 77

Cortical control of somato-cardiovascular integration: Neuroanatomical studies.
Sequeira, H., O. Viltart, S. Ba-M'Hamed, and P. Poulain 87

Central circuits mediating patterned autonomic activity during active vs. passive emotional coping.
Bandler, R., K. A. Keay, N. Floyd, and J. Price 95

Changes in autonomic and EEG patterns induced by hypnotic imagination of aversive stimuli in man.
Gemignani, A., E. Santarcangelo, L. Sebastiani, C. Marchese, R. Mammoliti, A. Simoni, and B. Ghelarducci 105

Cerebral vasoconstriction precedes orthostatic intolerance after parabolic flight.
Serrador, J. M., J. K. Shoemaker, T. E. Brown, M. S. Kassam, R. L. Bondar, and T. T. Schlegel 113

A role for adenosine in modulating cardio-respiratory responses: A mini-review.
Spyer, K. M., and T. Thomas 121

Visualization of sleep influences on cerebellar and brainstem cardiac and respiratory control mechanisms.
Harper, R. M., M. A. Woo, and J. R. Alger 125

History of Neuroscience

Dr. Otto Soltmann (1876) on development of the motor cortex and recovery after its removal in infancy.
Finger, S., T. Beyer, and P. J. Koehler 133

Review Article

Roles of molecular chaperones in the nervous system.
Ohtsuka, K., and T. Suzuki 141

Articles

Effects of neonatal cocaine treatment and gender on opioid agonist-stimulated [^{35}S]GTPγS binding in the striatum and nucleus accumbens.
Meyer, J. S., I. Shani, and D. Rice 147

***Trypanosoma cruzi* infection and the rat central nervous system: Proliferation of parasites in astrocytes and the brain reaction to parasitism.**
Da Mata, J. R., E. R. S. Camargos, E. Chiari, and C. R. S. Machado 153

Collateral projection of substance P receptor expressing neurons in the medullary dorsal horn to bilateral parabrachial nuclei of the rat.
Li, H., and Y.-Q. Li 163

Effect of norepinephrine receptors on trigeminal rhythm generation in newborn rats.
Kogo, M., A. Mori, H. Koizumi, K. Ishihama, S. Iida, S. Tanaka, and T. Matsuya 171

Large cortical lesions produce enduring forelimb placing deficits in un-treated rats and treatment with NMDA antagonists or anti-oxidant drugs induces behavioral recovery.
Hoane, M. R., S. Barbay, and T. M. Barth 175

Methylphenidate affects striatal dopamine differently in an animal model for attention-deficit/hyperactivity disorder—The spontaneously hypertensive rat.
Russell, V. A., A. S. de Villiers, T. Sagvolden, M. C. L. Lamm, and J. J. F. Taljaard 187

Permanent and transitory morphometric changes of NADPH-diaphorase-containing neurons in the rat visual cortex after early malnutrition.
Borba, J. M. C., M. S. Araújo, C. W. Picanço-Diniz, R. Manhães-de-Castro, and R. C. A. Guedes 193

Differential effects of K^+ channel blockers on frequency-dependent action potential broadening in supraoptic neurons.
Hlubek, M. D., and P. Cobbett 203

Effects of combined administration of zonisamide and valproic acid or phenytoin to nitric oxide production, monoamines and zonisamide concentrations in the brain of seizure-susceptible EL mice.
Nagatomo, I., Y. Akasaki, M. Uchida, M. Tominaga, W. Hashiguchi, and M. Takigawa 211

Basal levels and alcohol-induced changes in nociceptin/orphanin FQ, dynorphin, and enkephalin levels in C57BL/6J mice.
Ploj, K., E. Roman, L. Gustavsson, and I. Nylander 219

The effect of callosotomy on testicular steroidogenesis in hemiorchidectomized rats: A pituitary-independent regulatory mechanism.
Banczerowski, P., Zs. Csaba, V. Csernus, and I. Gerendai 227

Static contraction causes a reflex-induced release of arginine vasopressin in anesthetized cats.
Liviakis, L. R., and C. L. Stebbins 233

Retinal projections to the pregeniculate nucleus in the hemispherectomized monkey.
Théoret, H., D. Boire, and M. Ptito 239

CONTENTS VOLUME 53 NUMBER 3 OCTOBER 2000

Review Article

Role of sodium channel inhibition in neuroprotection: Effect of vinpocetine.
Bönöczk, P., B. Gulyás, V. Adam-Vizi, A. Nemes, E. Kárpáti, B. Kiss, M. Kapás, C. Szántay, I. Koncz, T. Zelles, and A. Vas 245

Articles

Action of 4-aminopyridine on extracellular amino acids in hippocampus and entorhinal cortex: A dual microdialysis and electroencehalographic study in awake rats.
Medina-Ceja, L., A. Morales-Villagrán, and R. Tapia 255

***In vitro* and *in vivo* characterization of hNT neuron neurotransmitter phenotypes.**
Saporta, S., A. E. Willing, L. O. Colina, T. Zigova, M. Milliken, M. M. Daadi, and P. R. Sanberg 263

Estradiol masculinizes the posteromedial cortical nucleus of the amygdala in the rat.
Vinader-Caerols, C., P. Collado, S. Segovia, and A. Guillamón 269

Cholinergic inputs to rostral ventrolateral medulla pressor neurons from hypothalamus.
Kubo, T., Y. Hagiwara, D. Sekiya, S. Chiba, and R. Fukumori 275

Diazepam induces FGF-2 mRNA in the hippocampus and striatum.
Gómez-Pinilla, F., L. Dao, J. Choi, and E. A. Ryba 283

Prefrontocortical serotonin depletion results in plastic changes of prefrontocortical pyramidal neurons, underlying a greater efficiency of short-term memory.
Pérez-Vega, M. I., A. Feria-Velasco, and I. González-Burgos 291

Age-related alterations of nitric oxide production in the brains of seizure-susceptible EL mice.
Nagatomo, I., Y. Akasaki, M. Uchida, M. Tominaga, W. Hashiguchi, S. Kuchiiwa, S. Nakagawa, and M. Takigawa 301

Expression of Fos in the hypothalamus of rats exposed to warm and cold temperatures.
McKitrick, D. J. 307

Identification of urocortin mRNA antisense transcripts in rat tissue.
Shi, M., X. Yan, D. H. Ryan, and R. B. S. Harris 317

Neurokinin A inhibits oxytocin and GABA release from the posterior pituitary by stimulating nitric oxide synthase.
De Laurentiis, A., D. Pisera, B. Duvilanski, V. Rettori, M. Lasaga, and A. Seilicovich 325

Lordosis-inhibiting effect of progesterone in male and female rats with septal lesions.
Satou, M., and K. Yamanouchi 331

Antihyperalgesia effect of BmK IT2, a depressant insect-selective scorpion toxin in rat by peripheral administration.
Wang, C.-Y., Z.-Y. Tan, B. Chen, Z.-Q. Zhao, and Y.-H. Ji 335

Endogenous dopamine potentiates the effects of glutamate on extracellular GABA in the prefrontal cortex of the freely moving rat.
Del Arco, A., and F. Mora 339

Effects of N-methyl-D-aspartate, kainate or veratridine on extracellular concentrations of free D-serine and L-glutamate in rat striatum: An *in vivo* microdialysis study.
Hashimoto, A., J. Kanda, and T. Oka 347

Serotonin-mediated striatal dopamine release involves the dopamine uptake site and the serotonin receptor.
Sershen, H., A. Hashim, and A. Lajtha 353

The polymodal sensory cortex is crucial for controlling lateral postural stability: Evidence from stroke patients.
Pérennou, D. A., C. Leblond, B. Amblard, J. P. Micallef, E. Rouget, and J. Pélissier 359

The action of isatin (2,3-dioxoindole) an endogenous indole on brain natriuretic and C-type natriuretic peptide-induced facilitation of memory consolidation in passive-avoidance learning in rats.
Telegdy, G., A. Adamik, and V. Glover 367

CONTENTS VOLUME 53 NUMBER 4 NOVEMBER 1, 2000

Special Issue: Proceedings of the 9th International Symposium on New Frontiers of Neurochemistry and Biophysics in the Acute and Chronic Neurological Diseases, Martin, Slovak Republic, 16–19 August 1999

Preface

Dobrota, D. 371

Articles

Strategies for studies of neurotoxic mechanisms involving deficient transport of L-glutamate: Antisense knockout in rat brain *in vivo* and changes in the neurotransmitter metabolism following inhibition of glutamate transport in guinea pig brain slices.
Rae, C., M. L. Lawrance, L. S. Dias, T. Provis, W. A. Bubb, and V. J. Balcar 373

Different receptors mediate motor neuron death induced by short and long exposures to excitotoxicity.
Van Den Bosch, L., and W. Robberecht 383

Molecular mechanism of neurodegeneration induced by Alzheimer's β-amyloid protein: Channel formation and disruption of calcium homeostasis.
Kawahara, M., and Y. Kuroda 389

Effect of coenzyme Q_{10} on biochemical and morphological changes in experimental ischemia in the rat brain.
Ostrowski, R. P. 399

Role of calcium in neuronal cell injury: Which subcellular compartment is involved?
Paschen, W. 409

Quinolinic acid enhances permeability of rat brain microvessels to plasma albumin.
Šťastný, F., I. Škultétyová, L. Pliss, and D. Ježová 415

Molecular mechanisms of tumor dissemination in primary and metastatic brain cancers.
Weber, G. F., and S. Ashkar 421

Possible extrapyramidal system degradation in Parkinson's disease.
Drobný, M., and E. Kurča 425

A study of creatine kinase reaction in rat brain under chronic pathological conditions—Chronic ischemia and ethanol intoxication.
Kašparová, S., D. Dobrota, V. Mlynárik, T. N. Pham, T. Liptaj, J. Horecký, Z. Braunová, and A. Gvozdjáková 431

Lipid oxidation in blood plasma of patients with neurological disorders.
Willker, W., and D. Leibfritz 437

Carnosine protects rats under global ischemia.
Stvolinsky, S., M. Kukley, D. Dobrota, V. Mezesova, and A. Boldyrev 445

Modulation of phospholipase C pathway in rat cerebral cortex during aging.
Miyamoto, A., and H. Ohshika 449

Molecular insights into neurodevelopmental and neurodegenerative diseases.
Pettegrew, J. W., W. E. Klunk, K. Panchalingam, R. J. McClure, and J. A. Stanley 455

CONTENTS VOLUME 53 NUMBER 5 NOVEMBER 15, 2000

Special Issue: Neural Development of Motor Behavior

Editor's Note

McClellan, A. D. 471

Articles

From egg to action.
Grillner, S. 473

Motor axon pathfinding in the peripheral nervous system.
Krull, C. E., and S. A. Koblar 479

Control of motor axon guidance in the zebrafish embryo.
Beattie, C. E. 489

Surprises from *Drosophila*: Genetic mechanisms of synaptic development and plasticity.
Featherstone, D. E., and K. Broadie 501

Activity-dependent editing of neuromuscular synaptic connections.
Personius, K. E., and R. J. Balice-Gordon 513

Physiological changes accompanying anatomical remodeling of mammalian motoneurons during postnatal development.
Cameron, W. E., and P. A. Núñez-Abades 523

Development and regulation of response properties in spinal cord motoneurons.
Perrier, J.-F., and J. Hounsgaard 529

Neuron addition and enlargement in juvenile and adult animals.
Farel, P. B., and D. L. McIlwain 537

Differentiation of electrical excitability in motoneurons.
Spitzer, N. C., A. Vincent, and N. J. Lautermilch 547

Development of inhibitory synaptic transmission to motoneurons.
Singer, J. H., and A. J. Berger 553

Development of neuronal circuits and behaviors in the medicinal leech.
Kristan, Jr., W. B., F. J. Eisenhart, L. A. Johnson, and K. A. French 561

Behavioral transformations during metamorphosis: Remodeling of neural and motor systems.
Consoulas, C., C. Duch, R. J. Bayline, and R. B. Levine 571

Early functional organization of spinal neurons in developing lower vertebrates.
Roberts, A. 585

The development of neuromodulatory systems and the maturation of motor patterns in amphibian tadpoles.
McLean, D. L., S. D. Merrywest, and K. T. Sillar 595

Control of respiration in the isolated central nervous system of the neonatal opossum, *Monodelphis domestica*.
Eugenín, J., and J. G. Nicholls 605

The development of mammalian motor systems: The opossum *Monodelphis domestica* as a model.
Cabana, T. 615

Ubiquity of motor networks in the spinal cord of vertebrates.
Cazalets, J.-R., and S. Bertrand 627

Perinatal development of lumbar motoneurons and their inputs in the rat.
Vinay, L., F. Brocard, J.-F. Pflieger, J. Simeoni-Alias, and F. Clarac 635

Contributions of intrinsic motor neuron properties to the production of rhythmic motor output in the mammalian spinal cord.
Kiehn, O., O. Kjaerulff, M. C. Tresch, and R. M. Harris-Warrick 649

Formation of the central pattern generator for locomotion in the rat and mouse.
Nishimaru, H., and N. Kudo 661

Pattern generation in non-limb moving segments of the mammalian spinal cord.
Lev-Tov, A., and I. Delvolvé 671

Regeneration of descending spinal axons after transection of the thoracic spinal cord during early development in the North American opossum, *Didelphis virginiana*.
Martin, G. F., J. R. Terman, and X. M. Wang 677

The role of serotonin in reflex modulation and locomotor rhythm production in the mammalian spinal cord.
Schmidt, B. J., and L. M. Jordan 689

Development of lumbar rhythmic networks: From embryonic to neonate locomotor-like patterns in the mouse.
Branchereau, P., D. Morin, A. Bonnot, B. Ballion, J. Chapron, and D. Viala 711

Early ontogeny of locomotor behaviour: A comparison between altricial and precocial animals.
Muir, G. D. 719

Review Article

A comparative analysis of the morphology of corticothalamic projections in mammals.
Rouiller, E. M., and E. Welker 727

Articles

Neuroprotective effect of green tea extract in experimental ischemia-reperfusion brain injury.
Hong, J. T., S. R. Ryu, H. J. Kim, J. K. Lee, S. H. Lee, D. B. Kim, Y. P. Yun, J. H. Ryu, B. M. Lee, and P. Y. Kim 743

Alterations of conditioned taste aversion after microiontophoretically applied neurotoxins in the medial prefrontal cortex of the rat.
Hernádi, I., Z. Karádi, J. Vígh, Z. Petykó, R. Egyed, B. Berta, and L. Lénárd 751

Investigatory behavior of a novel conspecific by Wistar Kyoto, Wistar and Sprague-Dawley rats.
Paré, W. P. 759

Characterization of transient focal ischemia-induced increases in extracellular glutamate and aspartate in spontaneously hypertensive rats.
Dawson, L. A., S. Djali, C. Gonzales, M. A. Vinegra, and M. M. Zaleska 767

Effect of repeated seizure experiences on tyrosine hydroxylase immunoreactivities in the brain of genetically epilepsy-prone rats.
Ryu, J. R., C. Y. Shin, K. H. Park, G. S. Jeon, H.-C. Kim, W.-K. Kim, J. W. Dailey, P. C. Jobe, S. S. Cho, and K. H. Ko 777

17β-estradiol suppresses expression of long-term depression in aged rats.
Vouimba, R.-M., M. R. Foy, J. G. Foy, and R. F. Thompson 783

Increased anxiety behavior in OLETF rats without cholecystokinin-A receptor.
Yamamoto, Y., J. Akiyoshi, A. Kiyota, S. Katsuragi, T. Tsutsumi, K. Isogawa, and H. Nagayama 789

Prenatal exposure to morphine differentially alters gonadal hormone regulation of δ-opioid receptor binding in male and female rats.
Vathy, I., Á. Rimanóczy, and R. Šlamberová 793

Microtubule-associated protein 1 subunit expression in primary cultures of rat brain.
Mei, X., A. J. Sweatt, and J. A. Hammarback 801

Role of altered cyclooxygenase metabolism in impaired cerebrovasodilation to nociceptin/orphanin FQ following brain injury.
Armstead, W. M. 807

Differences between rats and rabbits in NMDA receptor-mediated calcium signalling in hippocampal neurones.
Salinska, E., A. Ziembowicz, W. Gordon-Krajcer, J. Skangiel-Kramska, B. Jablonska, D. Makarewicz, E. Zieminska, and J. W. Lazarewicz 813

Neurochemical neutralization of amphetamine-type stimulants in rat brain by the indatraline analog (−)-HY038.
Partilla, J. S., C. M. Dersch, H. Yu, K. C. Rice, and R. B. Rothman 821

Stimulation of the locus coeruleus suppresses trigeminal sensorimotor function in the rat.
Matsutani, K., M. Tsuruoka, A. Shinya, R. Furuya, and T. Kawawa 827

Catecholaminergic enzymes, vasopressin and oxytocin distribution in Siberian hamster brain.
Shi, H., and T. J. Bartness 833

Repair of the transected spinal cord at different stages of development in the North American opossum, *Didelphis virginiana*.
Terman, J. R., X. M. Wang, and G. F. Martin 845

Erratum 857

Volume 52 List of Contents 859

Author Index 871

Keyword Index 873